



[4910-13-P]

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2018-0072; Product Identifier 2017-NM-082-AD; Amendment 39-19363; AD 2018-17-09]**

**RIN 2120-AA64**

**Airworthiness Directives; Bombardier, Inc., Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are superseding Airworthiness Directive (AD) 2014-05-28, which applied to certain Bombardier, Inc., Model DHC-8-400 series airplanes. AD 2014-05-28 required revising the maintenance or inspection program, as applicable. This AD requires revising the maintenance or inspection program, as applicable, to include a revised task. This AD was prompted by a determination that the interval from Maintenance Review Board (MRB) task number 323100-202 should not be escalated, and that Certification Maintenance Requirements (CMR) task number 323100-102 should be applicable to all Model DHC-8-400 series airplanes, regardless of which main landing gear (MLG) up-lock assembly is installed. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone: 416-375-4000; fax: 416-375-4539; email: [thd.qseries@aero.bombardier.com](mailto:thd.qseries@aero.bombardier.com); Internet: <http://www.bombardier.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0072.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0072; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The address for Docket Operations (phone: 800-647-5527) is Docket Operations, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Darren Gassetto, Aerospace Engineer, Airframe and Mechanical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7323; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2014-05-28, Amendment 39-17800 (79 FR 18611, April 3, 2014) (“AD 2014-05-28”). AD 2014-05-28 applied to certain Bombardier, Inc., Model DHC-8-400 series airplanes. The NPRM published in the Federal Register on February 9, 2018 (83 FR 5746). The NPRM was prompted by our determination that the interval from MRB task number 323100-202 should not be escalated, and that CMR task number 323100-102 should be applicable to all Model DHC-8-400 series airplanes, regardless of which MLG up-lock assembly is installed.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2017-15, effective May 29, 2017 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc., Model DHC-8-400 series airplanes. The MCAI states:

[Canadian] AD CF-2012-21 [which corresponds to FAA AD 2014-05-28] was issued to mandate the incorporation of Maintenance Review Board (MRB) task number 323100-202. As in-service experience has shown that the interval for MRB task number 323100-202 should not be escalated, Bombardier has introduced one-star CMR task

number 323100-102 to prevent task escalation. Bombardier has also revised the applicability of MRB task number 323100-202 to be applicable to the entire DHC-8-400/-401/-402 fleet, regardless of which main landing gear (MLG) up-lock assembly part number is installed. This revised applicability has resulted in CMR task number 323100-102 also being made applicable to the entire DHC-8-400/-401/-402 fleet, regardless of MLG up-lock assembly part number installation.

This [Canadian] AD mandates the incorporation of CMR task number 323100-102 [into the maintenance or inspection program, as applicable].

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0072.

## **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comment received on the NPRM and the FAA's response to that comment.

### **Request to Provide Actions for Operators with Task Already Included in Maintenance or Inspection Program**

Horizon Air requested that the proposed AD be revised to address operators that have already revised their maintenance or inspection program to include the information specified in CMR task number 323100-102 of Q400 Dash 8 (Bombardier) Temporary Revision (TR) ALI-0168, dated October 31, 2016 ("Bombardier TR ALI-0168"). The commenter stated that paragraphs (h) and (i) of the proposed AD established compliance times and a method for the initial functional check of CMR task number 323100-102. The commenter also noted that the method of compliance for the initial functional check in paragraph (i) of the proposed AD is based on accomplishing CMR task number

“32100-202.” We infer the commenter meant CMR task number “323100-102.” The commenter stated that this does not address operators that have the CMR task already in place.

We do not agree with the commenter’s request. We contacted the commenter and, upon further discussion, it was determined that paragraph (i) of this AD does address the commenter’s request regarding what operators that already have CMR task number 323100-102 in place should do. The commenter stated that it originally submitted the comment based on a misunderstanding and it intended to withdraw the comment. We have not changed this AD regarding this issue.

## **Conclusion**

We reviewed the available data, including the comment received, and determined that air safety and the public interest require adopting this AD as proposed, except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

## **Related Service Information under 1 CFR part 51**

Bombardier has issued Q400 Dash 8 (Bombardier) Temporary Revision (TR) ALI-0168, dated October 31, 2016. The service information describes CMR task number 323100-102, “Functional Check of the Main Landing Gear Uplock Assembly Latch.” This service information is reasonably available because the interested parties have

access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **Costs of Compliance**

We estimate that this AD affects 69 airplanes of U.S. registry. We estimate the following costs to comply with this AD:

We have determined that revising the maintenance or inspection program takes an average of 90 work-hours per operator, although we recognize that this number may vary from operator to operator. In the past, we have estimated that this action takes 1 work-hour per airplane. Since operators incorporate maintenance or inspection program changes for their affected fleet(s), we have determined that a per-operator estimate is more accurate than a per-airplane estimate. Therefore, we estimate the total cost per operator to be \$7,650 (90 work-hours x \$85 per work-hour).

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2014-05-28, Amendment 39-17800 (79 FR 18611, April 3, 2014), and adding the following new AD:

**2018-17-09 Bombardier, Inc.:** Amendment 39-19363; Docket No. FAA-2018-0072; Product Identifier 2017-NM-082-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD replaces AD 2014-05-28, Amendment 39-17800 (79 FR 18611, April 3, 2014).



**(c) Applicability**

This AD applies to Bombardier, Inc., Model DHC-8-400, -401, and -402 airplanes, certificated in any category, serial numbers 4001, 4003 and subsequent.

**(d) Subject**

Air Transport Association (ATA) of America Code 32, Landing gear.

**(e) Reason**

This AD was prompted by reports of excessive wear on the lower latch surface of the main landing gear (MLG) up-lock hook. This AD was also prompted by a determination that, the maintenance or inspection program, as applicable, must be revised to include a new task. We are issuing this AD to detect and correct up-lock hooks worn beyond the wear limit, which could prevent the successful extension of the MLG using the primary landing gear extension system, which in combination with an alternate extension system failure could result in the inability to extend the MLG.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Maintenance or Inspection Program Revision**

Within 30 days after the effective date of this AD, revise the maintenance or inspection program, as applicable, to incorporate the information specified in Certification Maintenance Requirements (CMR) task number 323100-102 of Q400 Dash 8 (Bombardier) Temporary Revision (TR) ALI-0168, dated October 31, 2016 (“Bombardier TR ALI-0168”). The applicable maintenance or inspection program revision required by this paragraph may be done by inserting a copy of Bombardier TR

ALI-0168, to Section 1-32, Landing Gear Maintenance Program, of Maintenance Review Board (MRB) Report Part 2, Bombardier Q400 Dash 8 Maintenance Requirements Manual, Product Support Manual (PSM) 1-84-7. When this temporary revision has been included in general revisions of the PSM, the general revisions may be inserted in the maintenance or inspection program, as applicable, provided the relevant information in the general revision is identical to that in Bombardier TR ALI-0168.

**(h) Initial Functional Check Compliance Times**

For MLG up-lock assembly latches that have accumulated flight cycles which exceed the CMR task number 323100-102 interval specified in Bombardier TR ALI-0168: Perform the initial CMR task number 323100-102 functional check as specified in Bombardier TR ALI-0168 using the applicable compliance time specified in paragraph (h)(1), (h)(2), or (h)(3) of this AD.

(1) For MLG up-lock assembly latches that have 14,200 total flight cycles or more as of the effective date of this AD: The compliance time for doing the initial functional check is within 800 flight cycles after the effective date of this AD.

(2) For MLG up-lock assembly latches that have 11,600 total flight cycles or more, but fewer than 14,200 total flight cycles, as of the effective date of this AD: The compliance time for doing the initial functional check is within 1,600 flight cycles after the effective date of this AD, but not to exceed 15,000 total flight cycles on the up-lock assembly latch.

(3) For MLG up-lock assembly latches with fewer than 11,600 total flight cycles as of the effective date of this AD: The compliance time for doing the initial functional

check is within 3,000 flight cycles after the effective date of this AD, but not to exceed 13,200 total flight cycles on the up-lock assembly latch.

**(i) Method of Compliance for Initial Functional Check**

Accomplishing CMR task number 323100-102 of Bombardier TR MRB-66, dated December 7, 2011, to Section 1-32, Landing Gear Maintenance Program, of MRB Report Part 1, Bombardier Q400 Dash 8 Maintenance Requirements Manual, PSM 1-84-7, within 3,000 flight cycles before the effective date of this AD, is a method of compliance for the initial functional check required by CMR task number 323100-102 as specified in Bombardier TR ALI-0168.

**(j) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7300; fax: 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s, TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

**(k) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2017-15, effective May 29, 2017, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0072.

(2) For more information about this AD, contact Darren Gassetto, Aerospace Engineer, Airframe and Mechanical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7323; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (l)(3) and (l)(4) of this AD.

**(l) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Q400 Dash 8 (Bombardier) Temporary Revision (TR) ALI-0168, dated October 31, 2016.

(ii) Reserved.

(3) For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone: 416-375-4000; fax: 416-375-4539; email: [thd.qseries@aero.bombardier.com](mailto:thd.qseries@aero.bombardier.com); Internet: <http://www.bombardier.com>.

(4) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Des Moines, Washington, on August 9, 2018.

Michael Kaszycki,  
Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

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